

Remarks

In the Office Action dated November 28, 2005, Examiner rejected claims 1-20 under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,735,702 (Yavatkar).

In response to Examiner's Interview Summary dated February 14, 2006 regarding the February 8, 2006 telephonic interview, Applicants' attorney does not completely agree with Examiner's characterization of the substance of the interview. Applicants' attorney did find the February 8, 2006 interview helpful.

By this Amendment, Applicants' Attorney has amended independent claims 1 and 9 to more particularly point out and distinctly claim what Applicants regard as their invention. Applicants' Attorney has not introduced new matter: Figure 7 illustrates collectors that are located at fixed points within a computer network; "the collectors interface with the forwarding infrastructure," (pg. 17, ll. 28-29); and, the "collector takes samples of statistics from the forwarding infrastructure," (pg. 18, ll. 1-2). Moreover, the controllers of Applicants' invention use either directed tracing or distribution correlation to trace attacks. (pg. 18, ll. 19-20). Neither of these methods employ mobile collectors to trace an attack. (pg. 17 l. 18 - p. 18. l. 32).

With regard to amended claim 1, Yavatkar fails to teach, disclose, or suggest collecting statistics at collectors located at fixed points within a computer network from a plurality of measurement points located within routing and forwarding infrastructure of the computer network, the collectors interfacing with the forwarding infrastructure and taking samples of statistics from the forwarding infrastructure. Rather, Yavatkar discloses mobile agents, i.e., bloodhound agents, that gather information about a network attack:

The bloodhound agent is a mobile agent capable of executing on a node of a network, stopping execution, transporting itself to another node, and resuming execution.
(Col. 3, ll. 55-57).

To trace attack traffic, the bloodhound agent follows an iterative process of finding the port for the link on the node on which it operates which is accepting attack traffic, attempting to traverse that link (i.e., to move to the node on the other side of the link) to a new node, and, once at the new node, again finding the port and link which are accepting attack traffic.
(Col. 4, ll. 10-16).

The collectors as claimed are not mobile: they are located at fixed points within the computer network.

Yavatkar also discloses stationary agents, i.e. watchdog agents, positioned at selected network nodes. (Col. 3, ll.49-54). These watchdog agents monitor for traffic being received at the node on which it operates having characteristics of a network attack. (Col. 15, ll. 7-9). In contrast, the collectors as claimed interface with the forwarding infrastructure of a computer network and take samples of statistics from the forwarding infrastructure. These statistics can be analyzed using such techniques as directed tracing or distribution correlation, (pg. 18, l. 19-20), to reconstruct the path taken by undesirable network traffic through the network from the source of the traffic. Neither of these methods employ mobile collectors to trace an attack. (pg. 1. 18 - p. 18. l. 32). The techniques used by Yavatkar's watchdog agents to detect a network attack do not reveal the path taken by undesirable network traffic through the network from the source of the traffic. (Col. 15, l. 42 - Col. 16, l. 21). Rather, once an attack is detected, a bloodhound agent is launched to trace the attack traffic to its source and analyze the paths taken by the attack traffic. (Col. 16, ll. 22-28).

With regard to claim 9 and for the reasons stated with regard to claim 1, Yavatkar fails to teach, disclose, or suggest collectors located at fixed points within the computer network for collecting statistics from a plurality of measurement points located within routing and forwarding infrastructure of the computer network, the collectors interfacing with the forwarding infrastructure and taking samples of statistics from the forwarding infrastructure.

Claims 2-8 and 10-20 depend respectively from claims 1 and 9. For at least the reasons claims 1 and 9 are not anticipated by Yavatkar, claims 2-8 and 10-20 are not anticipated by Yavatkar. Claims 2-8 and 10-20 provide additional limitations beyond claims 1 and 9 respectively and therefore are further not anticipated by Yavatkar.

Applicants' Attorney submits that the claims are in a condition for allowance. Applicants' Attorney respectfully requests a notice to that effect. Applicants' Attorney also invites a telephone conference if the Examiner believes that it will advance the prosecution of this application.

S/N: 09/855,810
Reply to Office Action of November 28, 2005

Atty Dkt No. UOM 0208 PUSP

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Respectfully submitted,

GERALD R. MALAN, ET AL.

By

A handwritten signature in black ink, appearing to read 'B. C. Stasa', written over a horizontal line.

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Date: February 22, 2006

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